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ABSTRACT

The study examined whether significant differences existed in the expressed attitudes of elementary, middle, and secondary level regular education teachers and support staff (N=92) toward mainstreaming and what variables impacted these attitudes. The "Mainstreaming Questionnaire" was used and inferential statistics applied to analyze differences in subjects' scores. Findings indicated significant differences in expressed attitudes of regular education teachers and support staff based on type of school in which they were working with high school and middle school personnel less supportive of mainstreaming than elementary school teachers. The findings did not indicate significant differences in the attitudes of the groups based on exposure to handicapped students, years of experience, certification level, and previous training in special education. (Author/DB)

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A COMPARATIVE STUDY OF THE ATTITUDES OF REGULAR EDUCATION PERSONNEL TOWARD MAINSTREAMING HANDICAPPED STUDENTS AND VARIABLES AFFECTING THOSE ATTITUDES

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Rehabilitation and Special Education

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ABSTRACT

TITLE: **A Comparative Study of the Attitudes of Educational Personnel Toward Mainstreaming Handicapped Students and Variables Affecting Those Attitudes**

PURPOSE: The study was designed to determine if there is a significant difference in the expressed attitudes of elementary, middle and secondary level regular education teachers and support staff toward mainstreaming and to determine if there were particular variables impacting attitudes. Five null hypothesis were tested.

METHOD: The descriptive survey method was used in this study. The data were collected utilizing the Mainstreaming Questionnaire, developed by Schmelkin, (1981). A total of ninety-two subjects were involved in the study. The subject population consisted of elementary, middle and high school teachers and support staff. Inferential statistics were used to analyze the differences in the subjects' scores. Statistical significance was measured at the .05 level of probability.

FINDINGS: The findings of this study reveal that there is a statistically significant difference in the expressed attitudes of regular education teachers and support staff which is influenced by the type of school in which they are working. The findings further revealed that there is no statistically significant difference in the attitudes of the groups based on exposure to handicapped students, years of experience, certification level and previous training in Special Education.

BACKGROUND

Countless problems have been identified and associated with the implementation of Public law 94-142. Among those problems educator's perceptions, attitudes and behaviors toward handicapped persons, have surfaced in the efforts to carry out Public Law 94-142. Although many teachers started out with positive feelings about mainstreaming, they now have grown increasingly frustrated as they often struggle against incredible odds to be effective with exceptional pupils (Doda, 1980).

Campbell (1985) notes that the problems of the students in the mainstream may be due in part to the attitudes of educators who have not internalized information on teaching the diversity of handicapped students found in that setting. He further concludes that colleges and universities can not continue to prepare educators as though they will encounter a homogeneous group of students.

Stainback (1985) reports that in the 1980s there existed a promainstreaming and pronormalization attitude among many regular educators. The author cautions that this is not to imply that all regular educators currently have positive attitudes. Additional research in this area is suggested.

Glick and Schubert (1981) suggest that teachers are becoming increasingly positive about sharing themselves and their lives with handicapped students. The authors report that the challenge is to go beyond legal requirements to achieve optimal change and positive attitudes toward the handicapped.

In contrast, Goldenberg (1983) reports that many regular classroom teachers already feel pressured in many ways, and often show resistance

toward mainstreaming because they have never taught the handicapped and because they are concerned about the ability to cope with problems that could arise in teaching these children. The student's achievement is affected by the teacher's attitude.

It is generally accepted among educators that the effectiveness of selective placement of exceptional children is significantly related to the degree to which the teacher or teachers with whom the child is placed accepts and understands him. That is, the success of programs for the handicapped students relies heavily on the teacher factor (Cruickshank, 1978).

Research conducted by Anderson (1984) indicates that the teacher is the crucial implementor of change in the classroom. In stressing the importance of a healthful school environment and the emotional atmosphere created in the school, Anderson stated:

> The most important thing in the environment is people, and the most important person is the teacher. Consequently, any proposal for change that intends to alter the quality of education for handicapped children in the school depends primarily on the teacher.

Similarly, Haring (1974) reports that the attitudes and understandings teachers have about handicapped children are influential in determining the intellectual, social and emotional adjustment of the children in regular classes. Haring reported over a decade ago that it is generally assumed that regular educators feel less accepting toward the handicapped than they do toward typical children. This assumption is currently translated into many inservice training programs and formal course work aimed toward training regular educators for mainstreaming. Jones (1983) notes that certain variables such as amount of contact, educational setting and psychosocial factors should be isolated and systematically studied before knowledge

observed from research on attitudes toward mainstreaming can be translated into educational practice.

Jones (1983) cautions that such variables as teaching levels, and experience with handicapped may be related to expressed attitudes. Differences or similarities in acceptance of handicapped children revealed by teachers at different levels of training, in different educational settings and with varying experiences should provide significant administrative information for realistic planning for an educational placement of handicapped children.

A review of recent research and reports on the nature of attitudes, as well as the literature on assessment and modification of teacher attitudes toward handicapped students, leads to the conclusion that the results are limited. Bates (1983) reports that with the exception of a few doctoral dissertations and limited research studies, the majority of investigations of attitudes toward mainstreaming display significant methodological weaknesses that are seldom acknowledge by the researchers.

Jones (1983) reports that a major problem in studies on teacher attitudes toward mainstreaming is the lack of usable information in the reported studies and that replication is well near impossible. Comprehensive well designed studies of teacher attitude toward mainstreaming and the various components of the concept, using well designed studies, could add much information to the question.

A review of the research and reports on the nature and function of attitudes and the literature on teachers attitudes toward mainstreaming and variables affecting attitudes leads to the conclusion that attitudes are generally viewed as influential in determining teacher behavior. Studies relating to teaching attitudes toward the handicapped are inconclusive and

the majority of researchers reviewed reported a need for further study in the area. While some research is reported on variables affecting attitudes these reports tend to isolate one variable for study such as sex; experience or training. Little research was found which focuses attention on such variables as exposure, teaching level or teaching setting. No comparative studies were located. Few studies focused collectively on variables impacting teacher attitudes. At least one author reported that the results of studies conducted to date are very limited in applicability and lacking in usuable information. Most authors reported that systematic attacks on the problem using well designed studies could add much information to the question.

The information related to attitudes identified in this study should suggest general experiences to be provided to elementary and secondary teachers in preservice and inservice programs and yield important data to assist school systems in implementing effective programs for handicapped students in varying organizational patterns. For these reasons, the study is designed to obtain further evidence regarding variables related to teacher's attitude toward the handicapped child in the mainstream.

Objective of the Study

The study was designed to determine if there is a significant difference in the expressed attitudes of elementary, middle and high school regular education teachers and support staff toward mainstreaming. A second purpose was to identify particular variables impacting attitudes, including exposure to the handicapped children, years of teaching experience, certification level and previous training in special education.

Research Hypotheses

HO_1: There is no significant difference in the expressed attitudes of elementary, middle and high school teachers and support staff toward mainstreaming the handicapped child.

HO_2: There is no significant difference in the expressed attitudes of elementary, middle or high school teachers and support staff toward mainstreaming the handicapped child based on amount of exposure to handicapped children.

HO_3: There is no significant difference in the expressed attitudes of teachers and support staff based on years of experience.

HO_4: There is no significant difference in the expressed attitudes of teachers and support staff toward mainstreaming based on certification level (T-4, T-5, and T-6).

HO_5: There is no significant difference in the expressed attitudes of teachers and support staff toward mainstreaming based on previous training in special education.

The Descriptive Survey Method was employed in this study. Leedy (1980) notes that the value of utilizing this method to process discrete data is that it comes to the researcher through observation. The descriptive survey method was deemed appropriate for the study because the data collected by the researcher came through observation, providing a record of subject's responses to the questionnaire.

Dependent/Independent Variables

The major dependent variable investigated in this study was the regular education teachers and support staff's expressed attitude toward mainstreaming. Attitudes of teachers and support staff were assessed utilizing the Schemelkin Mainstreaming Questionnaire (1981).

Independent Variable

The research reported in this study examined the differences in expressed attitudes of elementary, middle and high school regular education

teachers, and support staff toward mainstreaming, and further examined the effect of exposure to the handicapped student, previous training and experience on the subject's expressed attitudes toward mainstreaming. The independent variables examined included teaching experience, previous special education training, exposure to the handicapped student, and certification level.

Subjects

The subjects for this study were ninety-two (92) regular education teachers and support staff assigned to a large metropolitan school system. All subjects involved in this study were assigned to schools participating in the Comprehensive Inservice Training Project, a field based inservice training program. The criteria for selection of the participating school were as follows:

1. The school must have a high percent of children designated as handicapped--above ten percent.
2. The majority of identified handicapped children must be mainstreamed to regular classroom settings
3. The school should be staffed with teachers who have not had extensive training in the area of special education--3/4 of staff. (Extensive training is defined as more than two courses related to the education of the handicapped).

The subject selection variables were teaching position and teaching setting. The variants of subject were regular education teachers and support staff assigned to elementary, middle or high school settings.

The subjects used in this study were:

1. Elementary school regular education teachers and support staff. (N = 27)
2. Middle school regular education teachers and support staff. (N = 35)
3. High school regular education teachers and support staff. (N = 30)

Characteristics of the subject population by position, teaching level and years of experience are described in Figure II and Figure III.

FIGURE II

Data of Subjects
Based on Level of Training and Years of Experience

	Regular Classroom Teacher N=81			Support Staff N=11		
Level of Training	Elem. N=25	Middle N=30	High N=26	Elem. N=2	Middle N=5	High N=4
T-4	15	13	11	1	1	1
T-5	9	13	15	1	4	3
T-6	1	4	0	0	0	0
Years of Experience						
0-10	1	5	3	0	1	0
11-20	13	13	8	1	1	0
21-30	8	10	13	1	3	3
31-above	3	2	2	0	0	1

FIGURE III

Data of Subjects Based on Previous
Special Education Training and Exposure to Handicapped Students

	Regular Classroom Teacher N=81			Support Staff N =11		
Years of Exposure	Elem. N=25	Middle N=30	High N=26	Elem. N= 2	Middle N=5	High N=4
0-10	19	20	25	2	5	4
11-20	0	2	0	0	0	0
21-30	3	1	1	0	0	0
31-above	3	7	0	0	0	0
Courses in Special Ed. Train.						
0	14	13	14	1	3	1
1	11	16	11	1	2	1
2	0	1	0	0	0	2
3	0	0	1	0	0	0
4 or more	0	0	0	0	0	0

The research design considered appropriate for this study is presented in Figure 1 below:

FIGURE 1
RESEARCH DESIGN

INDEPENDENT VARIABLES						DEPENDENT VARIABLES	
Types of Settings	Positions	Level of Training	Years of Teaching Experience	Previous Training in Sp. Ed.	Exposure to Handicapped Children	Attitudes Toward Mainstreaming	
						Socio Emotional Cost	Academic Cost
Elementary Personnel	Regular Teacher Support Staff	T-4 T-5 T-6	0-10 11-20 21-30 31-above	0- 1- 2- 3- 4 or more	0-10 11-20 21-30 31-above		
Middle School Personnel	Regular Teacher Support Staff	T-4 T-5 T-6	0-10 11-20 21-30 31-above	0- 1- 2- 3- 4 or more	0-10 11-20 21-30 21-30		
High School Personnel	Regular Teacher Support Staff	T-4 T-5 T-6	0-10 11-20 21-30 31-above	0- 1- 2- 3- 4 or more	0-10 11-20 21-30 31-above		

ANALYSIS OF THE DATA

The study was designed to determine if there is a significant difference in the expressed attitudes of elementary, middle and high school regular education teachers and support staff toward mainstreaming the handicapped students into the regular classroom. A second purpose was to identify particular variables impacting attitudes toward mainstreaming. The variables studied were: teaching level, years of exposure to handicapped students, years of teaching experience, certification level, and previous training in Special Education. Five null hypotheses were tested to determine if there were particular variables impacting attitudes.

For the purpose of discussion, attention will be given to the analyses relating to expressed attitudes of the subject population as measured by the Mainstreaming Questionnaire. The instrument used in this study is entitled The Mainstreaming Questionnaire (Schmelkin, 1981). The Mainstreaming Questionnairewas constructed to measure attitudes toward mainstreaming. The Mainstreaming Questionnaire consists of a total of thirty items. The thirty items were used to determine the expressed attitudes of the total school population toward mainstreaming.

The subjects in this study consisted of ninety-two regular education teachers and support staff as described previously. The descriptive survey method was employed. Response data were measured utilizing the Mainstreaming Questionnaire.

For the purpose of discussion, the expressed attitudes of the three groups studied were analyzed and is reported here as described in Table I. The Mainstreaming Questionnaire consists of two factors which yield a measure of attitude toward mainstreaming. The first factor, Academic Cost of Mainstreaming, focuses on the impact of maintreaming on academic activities and progress, and the second factor, Socio-emotional Cost of Segregation, concentrates on the negative effects of segregation on the social and emotional development of handicapped children. The two factors are not unrelated and reflect two aspects of the complex and multifaceted issue of mainstreaming. The two factors are combined to measure attitude toward mainstreaming.

TABLE I

Means and Standard Deviations for Subscales of the Mainstreaming Questionnaire

Total Population of Reg. Ed. Teachers and Support Staff School Level	Academic Costs of Mainstreaming		Socio-emotional Costs of Mainstreaming	
	X	SD	X	SD
Elementary	2.613	1.022	3.419	0.765
Middle	2.850	0.921	3.800	0.791
High	3.265	1.163	3.529	0.961

Note: Each subscale consists of 15 items. Mean scores below 4 indicate a positive attitude on Academic Cost of Mainstreaming factor. A mean score above 4 on the Socio-emotional Cost of Mainstreaming factor indicates a positive attitude toward mainstreaming

Elementary - N = 27

Middle - N = 35

High - N = 30

Hypothesis One

H_0: There will be no significant difference in the attitudes of elementary, middle and high school teachers and support staff toward mainstreaming the handicapped child.

The analysis of Hypothesis One is presented in Table II presented below. Table Two consists of data resulting from the two way analysis of variance This data reflects the difference in the expressed attitudes among elementary, middle and high school teachers and support staff toward mainstreaming. There was a significant difference in the attitudes of teachers which is influenced by the type of school in which they are working. The F shown for Main Effects and the F shown for school is significant at the .05 level of probability. The Multiple Classification Analysis (MCA) Table II .. listed reveals that the greatest variation in attitude is at the high school level. Further examination also reveals that the greatest variation in attitude was expressed by the regular education teachers. These findings lead to the rejection of Hypothesis One

TABLE II

Two-way Analysis of Variance in Attitudes of Elementary, Middle, and High School Regular Education Teachers and Support Staff Regarding Mainstreaming

Source of Variation	Sum of Squares	df	Mean Square	F
Main Effects	12.704	3	4.235	2.828*
School	10.138	2	5.069	3.385*
Teacher/Support	3.385	1	3.385	2.261
2-Way Interaction School-Teacher	.809	2	.404	.270

*P .05 Level of probability

MCA TABLE I

Multiple Classification Analysis of the Differences in Attitudes Between and Within Elementary, Middle and High School Regular Education Teachers and Support Staff Toward Mainstreaming

Variable + Category	Unadjusted Dev. 'N	Eta	Adjusted For Independent Dev 'N	Eta
School				
Elementary	-.47		-.50	
Middle	.07		.08	
High	.33		.34	
		.26		.27
Teacher/Support Staff				
Regular	.06		.07	
Support Staff	-.45		-.56	
		.13		.16

Hypothesis Two

H_0: There will be no significant difference in the expressed attitudes of elementary, middle or high school teachers and support staff toward mainstreaming the handicapped child based on exposure to handicapped children.

The analysis of Hypothesis Two is presented in Tables III and IV presented below. Tables III and IV describe analysis of variance in attitudes of elementary, middle and high school teachers and support staff based on exposure to handicapped children. Table III contains data resulting from the analysis based on Exposure I which was defined as the number of identified handicapped children currently taught by the teacher. Table IV contains data resulting from the analysis of data based on Exposure II which was defined as the number of handicapped children previously taught.

TABLE III

Analysis of Variance in Attitudes of Regular Education Elementary, Middle and High School Teachers and Support Staff Toward Mainstreaming Based on Exposure to Handicapped Children

TABLE III

Source of Variation	Sum of Squares	df	Mean Square	F
Main Effects	19.878	6	3.313	2.2 81*
School	8.970	2	4.485	3.087*
Teacher/Support Staff	2.769	1	2.769	1.906
Exposure I @	6.463	3	2.154	1.483

.05 Level of probability

TABLE IV

Analysis of Variance Attitudes of Elementary, Middle and High School Teachers and Support Staff Toward Mainstreaming Based on Exposure to Handicapped

Source of Variation	Sum of Squares	df	Mean Square	F
Main Effect	14.073	6	2.346	1.540
School	9.283	2	4.642	3.048*
Teacher/Support Staff	2.650	1	2.560	1.681
Exposure 2 @	.658	3	.219	.144

*P .05 level of probability

The data cited in Tables III and IV indicates that there was a significant difference shown by the main effect. Examination of the Multiple Classification Analysis (MCA) Table II which further detail the variance shown in Tables III and IV indicates that the greatest variation in attitude is at the high school level. Though the effects are not significant, the data in the (MCA) Table III also shows that the attitudes of regular education teachers who are currently teaching between 21 and 30 handicapped students, or who have previously taught classes, 31 or more handicapped students are more affected. Based on these findings Hypothesis Two is accepted there is no significant difference in expressed attitudes which is based on exposure. Hypothesis Two is accepted with reservation. The data indicates that there is a significant difference shown by the main effect and the greatest effect is at the high school level (Table III) by regular education teachers, (Table IV). A larger sample or a different method for the measurement of exposure may yield more significant results.

@ Number of identifed children currently teaching.

MCA Table II

Multiple Classification Analysis of the Difference in Attitudes of Elementary, Middle and High School Teachers and Support Staff Based on Exposure

Variable + Category	Unadjusted Dev'n	Eta	Adjusted for Independent Dev.'n	Eta
School				
Elementary	-.51		-.46	
Middle	.07		.02	
High	.34	.27	.36	.26
Teacher /Support Staff				
Regular	.06		.07	
Support	-.45		-.47	
		.13		.14
Exposure I			(Currently Teaching)	
0-10	-.03		-.03	
11-20	-.76		-.52	
21-30	.54		.29	
31 and above	1.78		1.69	
		.25		.22
Exposure 2			(Previously Taught)	
0-10	-.09		-.04	
11-20	.26		-.01	
21-30	-.25		-.09	
31 and above	.33		.17	
		.15		.07

Hypothesis Three

H_0: There will be no significant difference in the attitude of elementary, middle and high school teachers and support staff toward mainstreaming based on years of experience

The analysis relating Hypothesis Three is presented in Table V. Table V presented below contains analysis of variance in attitudes of the elementary, middle and high school teachers and support staff based on years of education experience. Years of experience ranged from less than one to thirty-one and above.

TABLE V

Two-Way Analysis of Variance in Attitudes of Elementary, Middle and High School Teachers Toward Mainstreaming Based on Years of Experience

Source of Variation	Sum of Squares	df	Mean Square	F
Main Effect	5.692	4	1.423	.883
- Teacher	2.425	1	2.425	1.505
- Experience	3.126	3	1.042	.647
Two-Way Interaction				
Teacher/Support Staff Experience	1.375	3	.458	.285

.05 Level of probability

MCA TABLE III

Multiple Classification Analysis of the Differences in the Attitudes of Elementary, Middle and High School Teachers and Support Staff Toward Mainstreaming Based on Experience

Variable + Category	Unjusted Deviation	Eta	Adjusted Independent Dev'N	Eta
Teacher/Support Staff				
Regular	.06		.06	
Support	-.45		-.45	
		.13		.13
Experience				
1-10	-.08		-.09	
11-20	.02		.01	
21-30	.11		.08	
31 and above	.62		.63	
		.15		.15

There is no significant differences in the main effects for the variables shown. Examination of MCA Table III provide information regarding the pattern of effects for the variables in Table V. The data in MCA shows regular teachers and support staff with 31 or more years of experience have a more expressed attitude toward handicapped students. The least expressed attitude toward handicapped students is evident by the support staff and teachers having 21 to 30 years of experience. Hypothesis Three is accepted.

Hypothesis Four

H_0: There will be no significant difference in the expressed attitudes of elementary, middle and high school teachers and support staff toward mainstreaming based on certification level (T-4, T-5, and T-6)

Analysis of the data related to Hypothesis Four is presented in Table VI below. Table VI presents the analysis of variance in expressed attitudes toward mainstreaming based on certification level. Certification level was defined as undergraduate (T-4), graduate: Master's (T-5) and graduate: Education Specialist (T-6).

Table VI

Two-Way Analysis of Variance in Attitudes of Elementary, Middle and High School Teachers Toward Mainstreaming Based on Certification Level (T-4, T-5, and T-6)

Source of Variation	Squares	df	Square	F
Main Effects	8.140	3	2.713	1.762
- Teacher/Support	2.560	1	2.560	1.662
- Certification	5.575	2	2.781	1.810
Two-Way Interaction				
Teacher/Support Teacher-Certification	.211	1	.211	.137

The two way analysis of variance shown in Table VI does not reveal any significant difference in expressed attitudes based upon certification level. The MCA Table shown below reveals that the regular teachers have a more expressed attitude about mainstreaming than do the support staff studied. Further analysis of MCA Table IV indicates that teachers and support staff holding T-4 certification have more expressed attitude toward mainstreaming than those

personnel holding T-5 or T-6 certification. The results of the analysis in Table VI and the accompanying MCA IV Table leads to the acceptance of Hypothesis Four.

MCA Table IV

Multiple Classification Analysis of the Difference in Attitudes of Elementary, Middle and High School Teachers and Support Staff Based on Certification Level

Variable and Category	Unadjusted Deviation	Eta	Adjusted For Independent Dev.'N	ETA
Teacher/Support				
Regular	.06		.06	
Support	-.45	.13	.46	.14
Certification				
T-4	.20		.17	
T-5	.08	.20	-.06	.20
T-6	-.86		-.92	

Hypothesis Five

H_0: There will be no significant difference in the expressed attitudes of elementary, middle and high school teachers and support staff toward mainstreaming based on previous training in special education.

The analysis of the data relating to Hypothesis Five is presented and described as detailed in Tables VII and VIII below. Table VII contains the data relating to the analysis of the attitudes of teachers and support staff based on Training I, defined as graduate or undergraduate courses in Special Education. Table VIII describes the data resulting from analysis of attitudes of the groups based on Training II, defined as inservice course work in Special Education. Multiple classification analysis is presented in MCA Table V.

TABLE VII

Source of Variation	Sum of Squares	df	Mean Square	F
Main Effects	10.007	4	2.502	1.696
- Schools	1.978	2	.989	.670
- Teacher/Support Staff	4.227	1	4.227	2.866
- Training I@	4.710	1	4.710	3.193

.05 Level of probability

@ Graduate or undergraduate courses in Special Education.

TABLE VIII

Analysis of Variance in Attitudes Toward Mainstreaming
of Elementary, Middle and High School Teachers
And Support Staff Based on Training

Table VIII

Source of Variation	Sum of Squares	df	Mean Square	F
Main Effects	6.151	4	1.538	1.022
- School	4.301	2	2.150	1.429
- Teacher/Support Staff	2.472	1	2.472	1.642
- Training II@	.187	1	.187	.124

.05 Level of probability

@ Inservice courses in Special Education

The data shown in Tables VII and VIII does not reveal any significant difference in the expressed attitudes of teachers or support staff members which is influenced by training or type of school in which they are working. Review of the MCA Tables V and VI reveals that some influences are expressed at the middle and high school levels as a result of training. Close inspection of the MCA Table which accompanies Tables VII and VIII presented below, reveals that the regular classroom teachers have a more expressed attitude toward mainstreaming than the support staff. The MCA Tables further shows that influence of training is dependent upon its type and type of school in which the teacher is working. Formal course training (undergraduate or graduate) has the greatest influence on the expressed attitude of those in the middle and high schools. Inservice courses, through exerting an influence on those at both levels, has its greatest effect at the high school level. Neither type of training has an influencing effect on the attitude at the elementary level. Though the findings lead to the acceptance of Hypothesis Five; however, Hypothesis Five is accepted with strong reservations.

MCA Table V

Multiple Classification Analysis of Attitude Toward Mainstreaming of Elementary, Middle and High School Teachers Based on Training

Variable and Category	Unadjusted Deviation	Eta	Adjusted for Independents Deviation	Eta
School				
Elementary	-.41		-.34	
Middle	.03		.05	
High	.28		.21	
		.21		.17
Teacher/Support				
Regular	.07		.12	
Support	-.46		-.83	
		.14		.26
Training I [@]				
	-.09		-.11	
	.96		1.14	
		.24		.28

[@] Graduate or undergraduate courses in Special Education.

MCA TABLE VI

Multiple Classification Analysis of Attitude Toward Mainstreaming of Elementary, Middle and High School Teachers Based on Training

Variable and Category	Unadjusted Deviation	Eta	Adjusted for Independents Deviation	Eta
School				
Elementary	-.47		-.57	
Middle	.22		.35	
High	.34		.28	
		.30		.36
Teacher/Support				
Regular	.14		.16	
Support	-.54		-.65	
		.23		.27
Training II*				
	.02		.03	
	-.22		-.32	
		.05		.08

* Inservice training.

Summary of Findings

The findings of the study reveal that regular education teachers and support staff are positive regarding the academic cost of mainstreaming and negative toward the socio-emotional cost of mainstreaming. These findings indicate that the subjects studied viewed mainstreaming as not being costly to the academic program or academic progress of the handicapped or normal student but socially and emotionally costly to the handicapped students mainstreamed.

The findings of this study further indicated that there is a significant difference in the attitudes of elementary, middle and high school teachers and support staff which is influenced by the type of school in which they are working. Both the "f" shown form the main effect and for the school was significant at the .05 level or probability. Detailed analysis indicated that the greatest difference or influence was the high school level. Hypothesis One was rejected.

Several factors may account for the findings related to Hypothesis One. Some researchers have suggested that the difference in formal training of elementary, middle and high school teachers may account for variance in attitudes toward the handicapped. For example, Perry (1980) described intermediate level personnel as more curriculum and less child oriented. Another explanation of the variance in attitude may be found in the inherent structure of the school. Lake (1978) suggested that variance in attitude may be due to the academic structure of the secondary school, which he describes as less supportive of the mainstreaming concept than is the structure of the elementary school. This researcher further hypothesized

that the level and amount of exposure to the handicapped varies according to school level and may also account for variance in attitudes. Elementary school teachers generally have more opportunities to interact with the handicapped child over a longer period of time during the course of the school day. Middle and secondary level teachers are generally limited to contact within the discipline of instruction, usually one hour, per course per day.

The research findings further suggested that there was no significant difference in the attitudes toward mainstreaming based on the independent variables studied. These variables included exposure to handicapped students, certification level, previous training in special education, and teaching experience. H_{02}, H_{03}, H_{04}, and H_{05} were accepted. Further analysis of the data relating to H_{02} led to acceptance of the hypothesis with reservations. Significant difference was found in the main effects and at the school level. Further analysis revealed that the greatest variation in attitude was at the high school level. However, no significant difference was found based on exposure to the handicapped student.

No significant difference in the expressed attitudes of teachers and support staff was found based on years of experience (H_{03}) and certification level (H_{04}). Also, no significant difference was found in the attitudes of teachers and support staff based on training (H_{05}). Though significant inspection of the data relating to H_{05} indicated that some influence was expressed at the middle and high school level by the regular education teachers. Data further suggested that the influence of training is dependent upon its type and the type of school in which the teacher and support staff person is working. These findings led to acceptance of

H_{05} with strong reservations. These findings indicated that a great deal of intra and inter variability in educators' attitudes toward the handicapped is apparent. Educators' attitudes, therefore, may not be the best indicators of success for any particular mainstreaming effort.

CONCLUSIONS

Presented below are conclusions emanating from the results of the present study.

1. Regular education teachers and support staff's attitudes are positive based on the academic costs involved in mainstreaming handicapped children into regular classes and negative based on the socio-emotional costs of mainstreaming.

2. Elementary, middle and high school regular education personnel do differ in the attitudes expressed toward mainstreaming. The greatest variation in attitude is at the high school level.

3. Exposure to handicapped students has some influence on the attitudes of regular education teachers. The increased exposure to the handicapped students by teachers, influences the attitudes toward mainstreaming. A different definition of exposure and a large sample may yield significant findings in this area.

4. The influence of training on attitudes may be dependent upon its type and the type of school in which the educator is working.

5. Findings further indicate that there is no significant difference in the attitude of teachers and support staff based upon certification level.

6. Teaching experience may have some influence on the attitudes of teachers and support staff; however, significant findings were not reported in this area.

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